

551.506 (261.1) WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The average pressure for the month was very much above the normal at land stations on the coasts of Newfoundland, Canada, the British Isles, and in the Bermudas; it was slightly above on the Atlantic and Gulf coasts of the United States, as well as at Turks Island and San Juan, Porto Rico, while there was a small negative departure at Horta, Azores, and Swan Island.

The number of days with winds of gale force was apparently somewhat below the normal over the northern steamer lanes, and above over the region between 35th and 45th parallels and the 25th and 40th meridians.

Fog was prevalent over the Grand Banks, in the vicinity of the British Isles and off the American coast, north of Hatteras, while few reports were received from vessels in mid-ocean.

On April 1 and 2 there was a slight disturbance of limited extent central a short distance south of Halifax, N. S., while over the remainder of the ocean high pressure and light to moderate winds prevailed. The storm log from the American S. S. *Henry Steers* follows:

Gale began on the 1st, wind SW. Lowest barometer 29.68 inches at 5 a. m. on the 2d, wind SSW., 8; position, latitude 40° 07' N., longitude 63° W. End of gale on the 2d, wind NW., 9. Highest force of wind 9, SW.; shifts near time of lowest barometer SSW.-SW.-WNW.

From the 3d to the 6th conditions were comparatively featureless, as only one vessel reported heavy weather during that period. Storm log follows:

American S. S. *Editor*:

Gale began on the 4th, wind SW. Lowest barometer 29.72 inches at 4 p. m. on the 6th, wind WNW., 10; position, latitude 44° 55' N., longitude 36° 56' W. End of gale on the 7th, wind WNW. Highest force of wind 10, WNW.; shifts SW.-S.-W.-NW.

Charts IX and X show the conditions on April 8 and 9, respectively, when the midsection of the steamer lanes was swept by one of the severest storms of the month. Storm logs follow:

American S. S. *Editor*:

Storm began on the 8th, wind N. Lowest barometer 29.76 inches at 9 a. m. on the 8th, wind N., 10; position, latitude 42° 52' N., longitude 42° 57' W. End of gale on the 9th, wind N. Highest force of wind 10, N.; steady from N.

Dutch S. S. *Slidrecht*:

Gale began on the 8th, wind WSW. Lowest barometer 29.80 inches at 8 a. m. on the 8th, wind WNW., 10; position, latitude 35° 12' N., longitude 37° 05' W. End of gale on the 9th, wind NNW. Highest force of wind 10, WNW.; shifts WSW.-NNW.

Swedish S. S. *Stockholm*:

Gale began on the 8th, wind NE. Lowest barometer 29.68 inches at 4 p. m. on the 8th, wind NNE.; position, latitude 48° 20' N., longitude 38° 10' W. End of gale on the 9th, wind N. Highest force of wind 11; shifts not given.

On the 10th there was a low in southern waters, central near latitude 32° N., longitude 42° W.; this moved slowly eastward, and on the 12th and 13th the center was near the Azores. A few vessels encountered moderate to strong gales during this disturbance, and the storm logs follow:

Dutch S. S. *Almelo*:

Gale began on the 9th, wind N. Lowest barometer 29.26 inches at 2 p. m. on the 13th, wind WSW., 3; position, latitude 36° 33' N., longitude 34° 42' W. End of gale on the 14th, wind ENE. Highest force of wind 9, NNW.; shifts S.-SE.-E.

Italian S. S. *Georgia*:

Gale began on the 12th, wind NE. Lowest barometer 29.20 inches at 2 p. m. on the 13th, wind ENE., 10; position, latitude 38° 55' N., longitude 33° W. End of gale on the 13th, wind ENE. Highest force of wind 10, ENE.; shifts ENE.-N.

Chart XI for April 11 shows the unusual condition that existed in the Gulf of Mexico, where strong northerly gales prevailed, accompanied by high barometric readings. A HIGH with a crest of over 30.50 inches was central near Memphis, Tenn., while the center of the LOW as shown on Chart XI is some distance south of Nantucket. Storm logs follow:

American S. S. *Kekoskee*:

Gale began on the 10th, wind N. Lowest barometer 30.30 inches at noon on the 10th, wind N.; position, latitude 21° N., longitude 97° W. End of gale on the 11th, wind N. Highest force of wind 10, N.; wind steady from N.

American S. S. *El Sud*:

Gale began on the 11th, wind NNE. Lowest barometer 30.18 inches at 2 a. m. on the 11th, wind N., 7; position, latitude 26° N., longitude 88° 17' W. End of gale on the 11th, wind N., 7. Highest force of wind 7, N.; steady from N.

American S. S. *Heredia*:

April 11th, 5 a. m.; position, latitude 20° 41' N., longitude 86° 30' W. Strong wind sets in from N. with heavy rain squalls and heavy seas; sky overcast. Shipping water forward from 8 a. m. on the 11th to 4 a. m. on the 12th, when wind and sea moderated.

The low shown on Chart XI drifted slowly eastward, and on the 12th the center was near latitude 40° N., longitude 60° W.; the storm area was of limited extent, and the depression gradually filling in, practically disappeared by the 13th.

Storm log follows:

British S. S. *Kabinga*:

Gale began on the 11th, wind S. Lowest barometer 29.80 inches on the 11th, wind S., 12; position, latitude 39° 27' N., longitude 63° 56' W. End of gale on the 13th, wind N. Highest force of wind 12, S.; shifts S.-SSW.-NW.-N.

On the 12th the American S. S. *Steelmaker* experienced heavy weather in the vicinity of Porto Rico, as shown by the following extract from the daily journal:

On April 12, Greenwich mean noon position, latitude 19° 45' N., longitude 74° 12' W. Weather overcast, fresh breeze to moderate gale, heavy sea, vessel laboring and shipping water fore and aft.

From the 14th to the 17th, inclusive, there was a disturbance over northern Europe, and land stations in the British Isles, as well as vessels off the coast, reported moderate to strong northerly gales.

Storm logs follow:

American S. S. *Tekoa*:

Gale began on the 14th, wind W., 6. Lowest barometer 29.25 inches at 10 a. m. on the 14th, wind WNW., 8; position, latitude 55° 40' N., longitude 5° 45' E. End of gale on the 15th, wind NW., 6. Highest force of wind 10, WNW.; steady from WNW.

British S. S. *Vasari*:

Gale began on the 15th, wind NW. Lowest barometer 29.64 inches at 6 a. m. on the 17th, wind NW., vessel at Liverpool. End of gale on the 17th, wind N. Highest force of wind 9, NW.; shifts NW.-SW.-WNW.-NW.

Norwegian S. S. *George Washington*:

Gale began on the 15th, wind NW. Lowest barometer 29.50 inches at 6 a. m. on the 16th, wind NW., 8; position, latitude 56° 50' N., longitude 20° W. End of gale on the 17th, wind NNE. Highest force of wind 8, shifts NNW.-N.-NNE.

During the period from the 14th to the 17th, moderate weather was the rule over the steamer lanes with fog

over the Grand Banks. On the 16th winds of gale force were reported off the coast of Mexico as shown by the following storm log:

American S. S. *Saramacca*:

Gale began on the 15th, wind ESE.; lowest barometer 29.76 inches at 4 a. m. on the 16th, wind E., 7; position, latitude 17° 18' N., longitude 86° 47' W. End of gale on the 16th, wind E., 6. Highest force of wind 8, E.; shifts not given.

From the 18th to the 26th there were no well-defined disturbances of any marked intensity, although during this period some vessels in widely scattered sections of the ocean experienced moderate gales, as shown by the following storm logs:

British S. S. *Cornishman*:

Gale began on the 19th, wind SSW. Lowest barometer 29.76 inches at midnight, 19th, wind WSW., 7; position, latitude 50° 39' N., longitude 24° 1' W. End of gale on the 20th, wind NNW. Highest force of wind 8; shifts SSW.-NW.

American S. S. *West Mahomet*:

Gale began on the 20th, wind SSW. Lowest barometer 29.80 inches at 3 p. m. on the 20th, wind SW., 7; position, latitude 41° 08' N., longitude 56° 15' W. End of gale on the 20th, wind W. Highest force of wind 9, SW.; shifts SSW.-SW.-W.

British S. S. *Missouri*:

Gale began on the 24th, wind ESE. Lowest barometer 29.89 inches at 11 p. m. on the 24th, wind WSW., 3; position, latitude 40° 38' N., longitude 64° 03' W. End of gale on the 25th, wind W. Highest force of wind 9; shifts SSE.-SW.-WSW.

British S. S. *Collingsworth*:

Gale began on the 25th, wind NW. Lowest barometer 29.42 inches at 3:45 a. m. on the 28th, wind NNW., 7; position, latitude 42° 31' N., longitude 40° 39' W. End of gale on the 29th, wind N. Highest force of wind, 10, NNW.; shifts not given.

Between dates recorded on gale report force of wind continually varied dropping to force 6 several times for short periods; held to northwesterly points, except it was W. by S. for about eight hours on the 27th. Frequent rain and hail squalls.

The British S. S. *Cretic* encountered an unusually strong current as shown by the following report:

From noon April 23, position, latitude 40° 56' N., longitude 40° 38' W., to noon April 24, position, latitude 41° 31' N., longitude 48° 55' W., vessel set west 23 miles by careful calculation. During this period the temperature of the air fell from 67° to 42° F. and that of the water from 64° to 44° F. Wind WNW., 5; NW., 5 to 6; N., 5.

At 7 a. m. on the 27th, while about half way between Progreso and Habana, the American S. S. *Esperanza*, Capt. Avery, was in the vicinity of a water spout, that appeared to be about a mile high, although its base was shrouded in mist and its crest lost in the clouds. It was first observed by George K. Ludwigsen, first officer, who was on watch at the time, and was visible for about two hours. This phenomenon was at one time near the vessel, and the captain tried to break it by blowing the whistle, but this means proving ineffective, the life-line mortar was fired and the spout collapsed.

On the 27th there was a Low central near latitude 45° N., longitude 35° W. that afterwards developed into an unusually severe disturbance as shown by Charts XII and XIII for April 28 and 29, respectively. It remained nearly stationary until the end of the month, and on the 30th was apparently beginning to fill in, and no winds of gale force were reported on that day.

Storm logs follow:

Dutch S. S. *Kinderdijk*:

Gale began on the 26th, wind WNW., 7. Lowest barometer 29.14 inches at 4 p. m. on the 23th, wind SW. 6; position, latitude 44° 12' N., longitude 29° 32' W. End of gale on the 29th, wind SSE., 3. Highest force of wind 10; shifts NW.-SWS-SE.

British S. S. *Verbania*:

Gale began on the 27th, wind SE. Lowest barometer 28.97 inches at 8 a. m. on the 28th, wind E., 7; position, latitude 29° 41' N., longitude 32° 40' W. End on the 29th, wind N. Highest force of wind 9, NNE.; shifts ESE.-E.-NE.

Danish S. S. *Oscar II*:

Gale began on the 28th, wind ENE. Lowest barometer 28.93 inches at 2 p. m. on the 29th, wind NNW., 10, position, latitude 27° 10' N., longitude 40° 36' W. End of gale May 1, wind WNW. Highest force of wind, 11, NNW.; no shifts near time of lowest barometer.

American S. S. *American*:

Gale began on the 28th, wind SE. Lowest barometer 29.45 inches at 6 p. m. on the 28th, wind SE., 7; position, latitude 45° 50' N., longitude 27° 30' W. End of gale on the 30th, wind E. Highest force of wind, 8, SE.; shifts NE.-N.-NE.-SE.-E. SE. wind predominated during this gale.

**551. 506 (265.2)
NORTH PACIFIC OCEAN.**

By F. G. TINGLEY.

Pressure at the island stations of Dutch Harbor, Midway Island, and Honolulu averaged near the normal for the month and there were no especially marked conditions at any time at these stations. Over the ocean as a whole, however, high pressure predominated. The highest pressure at Dutch Harbor, 30.24 inches, occurred on the 1st and the lowest, 28.98 inches, on the 8th. At Honolulu the highest pressure, 30.20 inches, occurred on the 11th and 12th and the lowest, 29.90 inches, on the 1st. At Midway Island pressure was above normal on eight days in the first decade, two days in the second decade, and five days in the last decade. The highest pressure, 30.30 inches, occurred on the 5th and 6th and the lowest 29.86 inches on the 30th.

At the beginning of the month a belt of high pressure, covering the middle latitudes of the ocean, stretched from the coast of Asia to the coast of North America. There appeared to be two centers within this belt, one over Japan having a central reading of 30.53 inches, another of somewhat lesser magnitude between Dutch Harbor and Honolulu.

On the 1st a depression formed in the vicinity of Taiwan. With the eastward movement of the anticyclone over Japan during the succeeding several days this depression moved to the northward, merging with two others, one of which advanced over China, the other over the Yellow Sea. By the 4th these depressions had united to form a storm which was especially severe over the southern coasts of Japan. Reports indicate that some 30 lives were lost and great property damage occurred. In the harbor of Yokohama the Japanese S. S. *Alabama Maru* and *Atlas Maru* dragged their anchors and went aground, but subsequent reports of their movements indicated that neither sustained material damage. The former vessel had its passengers aboard and was about to sail for Seattle. The American S. S. *Golden State* arrived at Yokohama from Honolulu on the 4th, successfully weathering the gale.

While this storm prevailed on the western side of the Pacific the anticyclonic center which on the 1st lay between Dutch Harbor and Honolulu advanced eastward to the North American coast, increasing in energy, the central readings exceeding 30.50 inches. Its advance was marked by a strong to whole westerly gale off the middle Pacific coast on the 2d, 3d, and 4th.

The American S. S. *Richmond*, Capt. Jos. Fuchs, San Francisco for Honolulu, encountered this gale on leaving